

# **National Transportation Safety Board**

Washington, D.C. 20594

August 15, 2017

K. L. Peterson Project Director TOTE Maritime, Alaska 32001 32<sup>nd</sup> Ave S., Suite 200 Federal Way, WA 98001

Re: Tech review of the Human Factors Group Factual Report

Mr. Peterson:

The NTSB investigative team has reviewed all factual comments submitted by the parties as part of the technical review and has decided on a disposition for each one, as reflected below.

All editorial suggestions have been considered and will be incorporated as appropriate. As a reminder, the deadline for providing party submissions pursuant to 49 CFR 831.14 is August 31, 2017.

Best Regards, Brian Young Investigator in Charge National Transportation Safety Board 490 L'Enfant Plaza, S.W. Washington, DC 20594

Page/Line	TOTE, Inc. COMMENTS	NTSB – Disposition of Party Comments
Page 5, Line 1	Recommend rephrasing as, "Questions are multiple-choice, and the length of the exam varies depending on"	Concur, rephrased as requested.
Page 5, Lines 7-8	The draft factual report, with respect to heavy weather training, is incomplete. Recommend rephrasing as:  "The Coast Guard did not require deck officers, or other personnel, to take any specific formal heavy-weather training courses, and TOTE did not specifically require such training courses. However, mariners were provided informal heavy weather training onboard the EL FARO (and other Tote vessels), as part of Tote's onboard training program. For example, heavy weather training was completed onboard the EL FARO, during Captain Davidson's tenure, on January 29, 2015, and May 21, 2015. This training did not typically include specific navigational training for deck officers, on weather avoidance, but instead focused on general heavy weather training for all those onboard. Although TOTE was not required to ensure that officers obtained additional training outside of what was legally mandated by the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and Coast Guard regulations, various aspects of Tote's training program, such as the on board heavy weather training noted above, exceeded these legal requirements."  The below files are being sent with this comment sheet to illustrate shipboard training performed and training requirements:  Safety Training 1-29-15 Safety Training 2nd Quarter Summary of TRAINING ALL TSI (5)	information from Safety Training log (1-29-15). Second portion of suggested rephrasing (starting with Although TOTE was not required) is considered analysis and will not be included.  New paragraph reads as follows: The credentials of the officers and crew on <i>El Faro</i> documented that their training complied with Coast Guard and International Maritime Organization (IMO) regulations. The Coast Guard did not require deck officers to take any specific formal heavy-weather training courses; therefore, TOTE did not require such training. TOTE management stated, however, that mariners were provided informal heavy weather safety training onboard the <i>El Faro</i> as part of the company's onboard training program. For example, heavy weather safety training was among 5 topics covered in the 30-minute quarterly onboard safety training conducted on January 29, 2015. TOTE was not required to ensure that
Page 5,		Concur with adding information related to the Training

Lines 11- 12	We believe that the overall description of Tote's training program is incomplete and somewhat misleading. Recommend rephrasing as,  "According to the director of marine services, TOTE did not have one shoreside individual serving as a "dedicated trainer" responsible for shipboard training records or ship-specific training. Instead, vessel Masters, individual mariners, and various shoreside personnel have individual responsibilities for overseeing, carrying out, and documenting various aspects of training. Tote's training program, and the maintenance of training records, was managed and implemented according to the Training Addendum to the SMS. See Training Addendum. In this regard, Tote's training program for its mariners consisted of four parts: (1) indoctrination when the seaman comes aboard; (2) onboard Safety Training and Drills; (3) on board Tracked Training and Safety meetings; and (3) Certificated Training Ashore (STCW or license requirements). See Tote Training Addendum, Sec. 2.0 at p. 1 of 3. A comprehensive summary of training requirements, mandated for mariners who work aboard Tote's vessels, is included as a Training Matrix and discussed in Section 8 of the Training Addendum. See Training Matrix. Additionally, various weekly safety training is conducted onboard Tote's vessels, pursuant to Section 3.0 of the Training Addendum, and recorded on form TSI-V-SAF-005. Additional requirements for training, and recordkeeping for such training, are set forth in Sections 3 through 13 of the Training Addendum. "Copies of these forms are submitted at the end of each quarter to the Safety Department for review and retention.	Addendum. Additional verbiage added to the referenced paragraph as follows:  According to TOTE, vessel masters, individual mariners, and shoreside personnel had individual responsibilities for overseeing, carrying out, and documenting various aspects of training. TOTE's training program, and the maintenance of training records, were laid out in a training addendum as part of the company's Safety Management System (SMS). According to the addendum, the company training program for mariners consisted of four parts: (1) indoctrination when the seaman comes aboard; (2) onboard safety training and drills; (3) onboard tracked training and safety meetings; and (4) certificated training ashore (STCW or license requirements). A manual for the training addendum provided guidance for the training to be conducted onboard. The captain submitted a quarterly training log and signed training sheets for the crew to the company. According to the director of marine services, the logs were reviewed and filed by the safety department.
Page 6, lines 13- 16	The draft factual report states that, according to conversations recorded on the ship's VDR, the captain primarily used BVS in weather-related decision-making. Based on the evidence in the record, we believe this is not a fair or accurate characterization of the content of the VDR and does not accurately describe the tools and methods that Captain Davidson typically relied upon for weather-related decision-making.  As a threshold matter, given the poor quality of the audio and many	Removed reference to the captain's "primary" use of BVS. Some suggested wording implies analysis. Reworded referenced paragraph as follows:  TOTE subscribed to a commercial weather forecast and analysis program, Bon Voyage System (BVS), that was installed on at least two of <i>El Faro</i> 's computers, on the bridge and in the captain's office. According to the conversations recorded on the ship's voyage data

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resulting gaps and uncertainties in the transcript, one cannot draw definitive conclusions about what weather information the Captain was primarily relying on.

The evidence in the record indicates that captain routinely relied on all available sources of weather information, in addition to BVS. For example:

When asked to describe the tools Captain Davidson relied upon on the EL FARO, Captain Thompson, who had sailed with Captain Davidson, stated that there was no single source of weather relied upon and that Captain Davidson relied upon all available tools, which included: SAT-C, NAVTEX, BVS, weather fax (on the vessel or you could request weather faxes by email), satellite radio, satellite television - DIRECTV, and, in port, cellphone and the Internet were available. (See MBI Testimony of R. Thompson, 2/6/17, at pp. 67, 103-104.)

Similarly, when asked how Captain Davidson monitored weather and which tools he used, Captain Stith, who had previously sailed with Captain Davidson, stated that, in addition to using BVS, Captain Davidson also used various tools including SAT C and NAVTEX, and Captain Davidson would underline in red pen anything that applied, such as storm warnings or gusty winds predicted, and post that information on the bridge. Captain Davidson would also plot in pencil on the chart any storm system, tropical storm, gale, or low that was developing, and ask the bridge watchstanders to maintain that plot as the weather came in. (See MBI Testimony of K. Stith, 5/24/16, at pp. 36-37.)

Former Captain Villacampa confirmed the same tools had been used on the EL FARO. (MBI Testimony of P. Villacampa, 2/16/17, at pp. 1610, 1632-1633.) Importantly, Captain Villacampa, in assessing the content of the VDR, confirmed that Captain Davidson employed numerous tools on the EL FARO, specifically that they talked about the weather, analyzed BVS, looked out the window, watched the wind and

recorder (VDR), the captain used BVS, as well as other tools, in weather-related decision-making on the accident voyage. Other sources of weather information on *El Faro* included Inmarsat-C SafetyNET (Sat-C) and NAVTEX, as well as others when available, such as the Weather Channel and satellite radio. All of these sources of weather information were discussed among the crew as recorded on the VDR in the days preceding the accident, though investigators could not determine with certainty to what extent the captain used each source of information to make his decisions.

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swells, and that Captain Davidson requested the bridge watchstanders to "start logging that weather every 3 hours," watch for wind direction changes, and later that they "from here, here on out, plot the weather, wind direction force, barometer every hour." Captain Villacampa concluded that "as far as using the tools for identifying the location of the storm, [Captain Davidson] was using a lot of the tools that we were talking about." (MBI Testimony of P. Villacampa, 2/16/17, at pp. 1655-1656.)

Finally, the OMV, at section 10.8.1 (see MBI Exhibit 25), specifically provides that "The Master should use all available means to determine the weather that the vessel may encounter on a given voyage." The testimony and evidence suggest he did use all available means.

We recommend more accurately rephrasing this sentence as follows:

"According to the conversations recorded on the ship's voyage data recorder (VDR), the captain reviewed and used BVS in his weather-related decision-making on the accident voyage. The VDR further confirms that the ship was also receiving and reviewing many other sources of weather (Sat-C, NAVTEX, weatherfax, satellite radio, etc), some of which was reported to the Captain. Other evidence developed in the investigation confirmed that Captain Davidson, as a matter of practice, routinely relied on many sources of weather other than BVS, consistent with Tote's SMS which directs the use of "all available means to determine the weather that the vessel may encounter on a given voyage." Due to the quality of the VDR recording, we cannot determine with certainty to what extent Captain Davidson was basing his decisions, on the accident voyage, on these other sources of weather reporting."

Page 6, Lines 16-17

We believe that the discussion regarding training for use of the BVS system is incomplete. Recommend rephrasing and additional language as follows,

Concur with rewording of paragraph, although on the job training is not considered "formal training", so beginning of paragraph remains the same. Reworded end of referenced paragraph as follows:

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"Investigators found no evidence users of BVS on *El Faro* had received *Faro* had any formal training with the system. a formal training course on the system after joining the company or Testimony from deck officers indicated that there was vessel. However, testimony from deck officers indicated that there was on-the-job training and a BVS user's manual and quick on-the-job training conducted, and the BVS user's manual and quick reference guide were readily available for use on the reference guide were readily available and used. See MBI transcript, vessel. The relief second mate indicated that he had May 24, 2017, testimony of Tote Captain (Stith) at 44. Additional called the company that supplied BVS (Applied testimony indicated that Captain Davidson and Chief Mate Shultz Weather Technology) directly when he had questions, had a great deal of experience with BVS. Id. Another deck officer and the captain also assisted in teaching him to use learned to use BVS onboard and confirmed that he had called the BVS. company that makes BVS by telephone when he had questions, and that Captain Davidson, who was well versed in its use, also taught him how to use BVS. NTSB Interview December 6, 2015, Second Mate (Baird), at pp. 118-119."

Investigators found no evidence that users of BVS on El

# Page 7, lines 4 through 10.

Recommend line 4 be amended to state that officers were "expected to added September 7-20 OT averages, though my work up to 12 hours a day while on the vessel under their contract." averages were slightly higher than those provided in this There could be days that less than 12 hours a day were worked. The 12 document. hour figure was a ceiling (before overtime hours accrued), not a floor. SIU: total OT hours 1,561 (divided by crew of 22

Also, the discussion of overtime is somewhat unclear, incomplete, and work day) potentially misleading. The language, as written, does not (a) provide Officers: total OT hours 71 (divided by 9 officers totaled relative context to the overtime numbers quoted in the draft factual 0.56 hrs or 12.56 hrs per day for officers given a 12 hr report, and (b) leaves the misimpression that unlicensed crew worked work day). significantly more hours, on average, than licensed officers (because To avoid confusion between actual hours worked and they worked far more overtime hours on average). We recommend the overtime/daily base wages, references to overtime pay following additional language be added at line 10:

During this two week period, between August 24, 2015 and September 6, 2015, the average work day for officers was approximately 13 hours per El Faro's officers had employment contracts with day, and approximately 10.9 hours per day for SIU crewmembers.

For the next 2-week period leading up to the accident voyage, from

Concur with suggested changes to clarify hours. Also

totaled 5 hrs or 13 hrs per day on average given an 8 hr

were removed and limited the explanation to actual hours worked.

TOTE through AMO. They were expected to work 12 hours a day while on the vessel under their contract. The typical work schedule on *El Faro* was a rotation of 10 weeks on duty, 10 weeks off. Actual work hours for the

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September 7 through September 20, 2015, the amount of overtime accident voyage were not available to investigators. decreased. The EL FARO's officers averaged approximately 7.5 hours However, during the 2-week period from August 24 to of overtime for that pay period (or just over 30 minutes each day of September 6, 2015, the average workday for El Faro's overtime for each officer), and the SIU crewmembers averaged officers was approximately 13 hours per day and approximately 65 hours of overtime during this same time period, approximately 10.9 hours per day for SIU During this two week period, the average work day was approximately 12.5 hours per day for officers, and approximately 10.3 hours per day the accident voyage, from September 7 through for SIU crewmembers.

Generally, SIU crewmembers are entitled to overtime hours for (a) all about 13 hours per day for SIU crewmembers. hours in excess of their normal 8 hour workday during the week and (b) all hours worked on holidays and weekends. By contrast, licensed officers are generally entitled to overtime only for hours worked each day in excess of 12 hours (there is no overtime for weekends unless more than 12 hours is worked).

The following summary is offered by TOTE after reviewing the 6 pay periods that were submitted to NTSB in response to request No. 81.

I reviewed all of the timesheets for the 6 pay periods prior to the incident and I can only find one single instance where an officer worked 14 hours of overtime in a pay period (meaning 1 hour each day over the 12 hours). Other OT hours were paid for holidays as required by the CBA, but this would not mean the officer would work more than the standard 12 hours per day.

In addition, I reviewed all of the unlicensed hours and while the timesheets show that a crew member was paid a significant number of hours of Overtime, It doesn't mean that the individuals actually worked the hours.

I will take a few examples of types of OT hours to demonstrate.

**SIU Meeting** – Unlicensed are paid one hour per month to attend a

crewmembers. For the next 2-week period leading up to September 20, the work hours were similar for officers. The average workday was 12.5 hours for officers, and

		<u></u>
	meeting for unlicensed ship's representatives. Many times this is less	
	than one hour or doesn't occur at all.	
	<b>Room sanitary</b> – all unlicensed are paid one hour per week to clean	
	their room.	
	Market and a standard	
	Working on the weekend – all hours worked on Sunday and Saturday	
	are paid an additional overtime rate. For example when an AB stands	
	their normal watch they are paid 8 hours of OT for those hours because	
	it is a Saturday or Sunday.	
	Haliday, all bayes wasted as a baliday area paid at the avertion	
	Holiday – all hours worked on a holiday are paid at the overtime	
	rate. For example when an AB stands their normal watch they are paid 8	
	hours of OT for those hours because it is a holiday.	
	<b>Trash</b> — Unlicensed are paid 1 hour for taking out trash even if the task	
	could take 30 minutes.	
	Could take 50 minutes.	
	Every call out min of 1 hour — if an unlicensed person is called out for	
	15 minutes they must be paid a min of 1 hour.	
	13 minutes they must be paid a min of 1 hour.	
	TOTE offers up a phone interview with Melissa Serridge, Director, HR &	
	Labor Relations, as a means to place this information into the	
	investigative record, if desired.	
Page 8,	The conion officer evaluations accomplished by the next engineer even	Concur. Changed end of referenced paragraph as
Line 1	The senior officer evaluations accomplished by the port engineer were done annually, whether the officer was on or off the vessel at the time.	follows:
	Senior officer evaluations were not done upon being detached from the	The port engineer was responsible for completing yearly
	vessel. "Senior officers" is usually associated with the top 4 officers;	evaluations of the captain and the chief engineer. The
	Chief Engineer, First Assistant Engineer, Captain and Chief Mate. T	first engineer's performance evaluation was to be
	Port Engineer was responsible for the Captain and Chief Engineer. The	completed by the chief engineer, while the chief mate's
	First Engineer and Mate were completed on board by the Chief	evaluation was to be completed by the captain.
	Engineer and Captain.	
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Page, 9, Table 2	Additionally there should be a "Poor" column.	Concur, new column added.
Page 9, Line 5	We suggest a comma after "1988."	Concur, comma added.
Page 10, line 3	We believe that the statement that Captain Davidson "spent most of his sailing career on tankers" to be inaccurate. Recommend rephrasing this to say:  "The captain spent approximately 14 years sailing on tankers and more than 10 years sailing on deep draft cargo vessels."	
Page 13, Lines 10-	Recommend deleting either the word "ship" or "vessel."	Concur, deleted "vessel".
Page 22, lines 8-10	The draft report states "TOTE Maritime Puerto Rico was also the owner of two new LNG vessels under construction, the Isla Bella and the Perla Del Caribe."  The Certificate of Documentation lists TOTE Shipholdings as the owner.	Concur. Rephrased as follows:  TOTE managed <i>El Faro</i> and <i>El Yunque</i> and provided ship-management services, including crewing. TOTE Shipholdings <sup>i</sup> was also the owner of two new LNG vessels under construction, the <i>Isla Bella</i> and the <i>Perla Del Caribe</i> .
		<sup>1</sup> Owner of Marlin vessels chartered to TOTE Maritime Puerto Rico.
Page 22, Line 10	The sentence should be changed from " "umbrella of the TOTE family of companies" to "umbrella of the TOTE, Inc. family of companies."	Added "TOTE, Inc."
Page 22, Lines 10- 11	Somilians in which are the president of TOTE Somilians is leasted in	The following has been added to the referenced paragraph:  At the time of the accident, the vice president of TOTE

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Rico Please clarify the writer's intentions. Maritime Operations, Puerto Rico and Alaska, worked out of the Tacoma, Washington office, though he supervised technical personnel in Jacksonville, Tacoma, and San Diego, California. He reported to the president, who was based in Jacksonville (see figure 1 for an organizational chart). As for writer's intention: The structure of the company is complicated and therefore, some explanation is needed. The intention of this statement is to simply describe who is overseeing the operations of the TOTE vessels and where they are located--Jacksonville, Seattle, Puerto Rico, etc. The draft factual report states that, during the 2012-2013 company Paragraph has been modified to read as follows: Page 22, reorganization, "some of the positions were not replaced with employees When TOTE Maritime Puerto Rico was still operating lines 15who had marine engineering and operational backgrounds." The overall 18; and as Sea Star Line, it employed marine operations language of this part of the draft report implies that overall support and managers to facilitate and bridge ship-to-shore page 23, oversight of the vessels declined after the 2012-2013 reorganization. We operations and provide voyage support. During a lines 1-2 believe this is not a fair or accurate characterization of the evidence, or of company reorganization in 2012–2013, some positions were not replaced with employees who had marine the actual result of that reorganization. In fact, as testimony consistently confirmed, while duties may have been reallocated, there was no loss of engineering and operational backgrounds. For example, before the reorganization, TOTE had both port captains function of personnel, safety, or shore- side support in the years after the reorganization. For example, an examination of the evidence reveals the and port engineers to oversee vessel operations. Following the reorganization, only port engineer following: positions were filled, and no port captains were listed in Great care was taken during the reorganization to ensure that any the organizational structure for the commercial fleet. change would not compromise safety of operations. (MBI Testimony of TOTE management stated during MBI testimony that the P. Keller, 5/26/16, p. 67.) Mr. Peterson testified that during the reorganization did not negatively impact shoreside support; in fact, the relocation of personnel from New reorganization, the functions continued to be covered, but for a while by Jersey to Jacksonville enhanced shoreside support and people in different locations, but that, by the end of the reorganization, they wound up with "a lot more boots on the ground ... oversight. There were, however, conflicting statements in Jacksonville as opposed to how the operation was previously." (MBI on this topic. A former chief engineer, who worked on Testimony of L. Peterson, 2/13/17, p. 1037-1038.) El Faro during the reorganization described his interfaces the company as follows: "The biggest change would have been the fact that [port captain] was Mr. Wagstaff testified that the manner in which the terminal operations

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personnel engaged with the marine operations team shore-side to promote the safe and efficient loading of the ship was the same after the reorganization as it was before. He added that the operation ran as efficiently between the terminal and ship after, as it did before, the restructuring. (MBI Testimony of J. Wagstaff, 5/18/16, p. 79-80.) The functions addressed by Tote Maritime Puerto Rico personnel and those by Tote Services Inc. personnel were coordinated more effectively and safely after the reorganization, in part because those personnel are in the same area and are in constant communication. (MBI Testimony of J. Wagstaff, 5/18/16, p. 81.)

Captain Axelsson testified that the reorganization did not change the availability of someone ashore with whom he could discuss vessel operations. He testified that before the reorganization he spoke with Captain Harry Rogers (in New Jersey) and afterwards he spoke with John Lawrence (in Jacksonville, closer to the vessel's operations). (MBI Testimony of Capt. Axelsson, 5/16/16, pp. 132-133.)

Captains could report to multiple people depending on the topic -safety issues with the Designated Person, HR issues with the Director
of Human Resources, technical operations issues with the Port Engineer
or Vice President of Operations, but captains otherwise operate
autonomously. (MBI Testimony of J. Fisker-Anderson, 2/19/16, p. 1213.) The captain is the primary nautical expert. There are other captains
within Tote, such as Captain John Lawrence, but the captains
at sea themselves are the nautical experts. If the captain needed nautical
advise or assistance, "he would be reaching out to the Designated Person
and then [Tote] would stand up [its] support team." (MBI Testimony of
J. Fisker-Anderson, 2/19/16, p. 14-15.) Within that group, and
throughout Tote, there are a number of people there that have significant
deck experience including the leadership. (MBI Testimony of P. Keller,
5/26/16, p. 68.

The reorganization of Sea Star Lines in the 2013 time frame did not

basically the only guy had contact with in Jacksonville, whereas everybody else would have been West Coast..." He stated that before the reorganization, "they were all there, right there, so you could deal with multiple guys from Jacksonville, which was a whole lot easier, because they were right there, than when it was just [port captain] and dealing with people from the West Coast". A former captain on *El Faro* testified that the reorganization did not change the availability of someone ashore with whom he could discuss vessel operations. He stated that before the reorganization he spoke with the former DPA, located in New Jersey and afterwards he spoke with the current DPA, located in Jacksonville. He was asked if he recalled anybody in the Jacksonville area who was involved with marine operations. His response was, "No, sir."

According to TOTE, the captain is the primary nautical expert.; There are other captains in the TOTE organization, such as the DPA, but the captains at sea themselves were the nautical experts.

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impact the weather information available to the ship, in fact by that time Captain Hearn noted "We had the same. Weather and it was more weather information than I ever had previously in my career as a Master." (MBI Testimony of J. Hearn, 5/17/16, p. 66.)

The facts are that shoreside support was not degraded as a result of the reorganization of 2012-2013, and, in fact, the relocation of personnel in Jacksonville from New Jersey, according to the witnesses, ultimately enhanced shoreside support and oversight.

Similarly, the isolated citation to the testimony of the Director of Marine Safety and Services, on page 23 at lines 1-2, is nothing more than soundbite. The evidence developed in the NTSB and USCG investigation consistently showed that the captains had the overriding authority and responsibility to make decisions for the safe navigation of the vessel, to carry out the vessels' operations, and that Tote's shoreside personnel provided support and oversight of those operations entirely consistent with the ISM Code and the company's SMS. To state otherwise amounts to ignoring the facts and evidence.

We strongly believe that the language at Page 22, lines 15-18 and page 23, lines 1-2 needs be removed because it is not supported by evidence, or, at a minimum, the draft factual report should accurately reflect the evidence as stated above

### Page 23, line 9

This description of Captain Lawrence's responsibilities is incomplete The following statement could not be verified by and somewhat misleading. Recommend adding or rephrasing as evidence provided during the investigation thus far: follows:

According to statements from the president of TOTE, the DPA was management system related duties on a part time responsible for overseeing TOTE's safety, environmental, and other basis." According to the organizational chart, as well as regulatory compliance programs for its vessels under management. See Mr. Lawrence's testimony, he had one assistant, Ms. MBI Testimony 2/6/17, at p. 1223, lines 1-25. In this regard, according Finsterbusch. to the DPA, these responsibilities extended to 24 vessels and he was expected to be available 24 hours a day, 7 days a week, in emergency or

"The DPA had two full time employees assisting him and two other personnel who would assist with safety

Changes to referenced paragraph are as follows:

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other urgent situations. The DPA had two full time employees assisting According to statements from the president of TOTE, him and two other personnel who would assist with safety management the DPA was responsible for 24 vessels and was system related duties on a part time basis. In addition, of the 24 vessels expected to be available 24 hours a day, 7 days a week. under management, 14 were in active operation and 10 were He had an assistant manager who would assist with SMSinactive. The DPA further testified that his span of control with this related duties on a part-time basis. number of vessels is adequate, and that at his last company where he Of the 24 vessels under management, 14 were in served as DPA he had approximately 78 vessels under management." See MBI Testimony 2/17/2016, at p. 37 lines 11-19, p. 67, lines 21-23

active operation and 10 were inactive. The DPA testified that his "span of control" with this number of vessels was adequate, and that at the last company where he served as DPA he had approximately 78 vessels under management." In his role as DPA, he reported directly to the president. In his role as manager of safety and operations, he reported to the director of marine safety and services. The director of marine safety and services joined Sea Star Line as a port engineer in 2010 and was promoted to director in January 2014.

#### Page 23, Line 13

The draft factual report states that "TOTE had planned to hire an additional employee to assist the manager of safety and operations/DPA with his extensive duties." We do not believe this is entirely accurate. The company had not yet fully approved the position for hiring at the time of the interview. The email from the DPA to the potential candidate was merely sent as a courtesy and "thank you" for her time, and we do not feel is necessarily reflective of the plans of the organization. In fact, Tote continued to explore other options, including a reallocation of duties as described in our comments to page 24, lines 1 and 2. It is more accurate to state that "TOTE had considered hiring an additional employee to assist the manager of safety and operations/DPA with his extensive duties, but ultimately determined that a reallocation of duties was the best alternative at the time."

Concur with incorporating additional information about task re-allocation (NTSB did not have detailed information related to this prior to receiving tech review comments and supplemental information.) Additionally, section on email to interview candidate has been deleted. Referenced paragraph has been rephrased to

TOTE had considered hiring an additional employee to assist the manager of safety and operations/DPA with his extensive duties, but the company ultimately determined that a reallocation of duties was the best alternative at the time. The DPA stated in an interview in October 2015 that TOTE had not hired an assistant and that he continued to fill both roles with no additional assistance. He stated at the third MBI hearing that the related tasks had been distributed across the company's safety department.

Page 24, Lines 1-2	The DPA stated in an interview in October 2015 that TOTE had not hired an additional assistant and that he and his assistant continued to perform the function without a third person. After consideration of the tasks needed and the available resources, a solution was arrived at that distributed and re-assigned some of the Manager's duties to other TOTE office staff, negating the need to bring on another person.	Concur. The following was added to the end of the referenced paragraph:  TOTE management later provided detail about that task reallocation, stating that some of the manager's duties had been distributed and re-assigned to other TOTE office staff, negating the need to bring on another person. The director of safety and services assisted in the DPA role.
	A copy of the e-mail and e-mail attachment dated July 28, 2015, that outlines these assignments are attached to this comment sheet:  • Safety & Vessel Ops Task Allocation e-mail  • Safety & Vessel Ops Task Allocation e-mail attachment	
Page 24, Line 4	A sentence should be added to the end of the paragraph which reads, "The director of safety and services assisted in the DPA role."	Concur. This change is shown above (See comment regarding pg. 24, lines 1-2.)
Page 24, Line 11	There is not a "backup" port engineer. The two port engineers would back up each other up as needed. The Director of Operations would also back up port engineers, if needed.	Concur with change. New verbiage states: The two port engineers would back each other up, as needed.
Page 28, Lines 1-2	The Vice President of Marine Operation does not have oversight of the Marine Services Department.	Concur. New verbiage states: The position was also responsible for the overall direction, coordination, and evaluation of these units.
Pages 28, 29, and 30	The list of duties is written as if the Director of Safety and Marine Services directly and personally oversees these duties. These duties are listed as being "through the Manager."	Concur with changes. New verbiage states: Through the manager of safety and operations, the director was responsible for the following:
Page 29, Line 7	For consistency, there needs to be a period at the end of this bullet.	Concur. Period added.

Page 33, Line 2	For consistency, there needs to be a period at the end of this bullet.	Concur. Period added.
Pages 26-		The following statement was added just prior to the
40 - Job	The draft factual report recites many job functions for particular	Organizational chart (Figure 1):
	positions that are taken directly out of Tote job description	According to Tote, some of the following job
	documents. As was made clear during the course of the testimony at	descriptions, which were in place at the time of the
	the MBI, some of the job descriptions were outdated and had not been	accident, were outdated. Certain aspects of the job
	updated to reflect changes and reallocations of specific duties. As just	descriptions may not have been updated as a result of
	one example, Captain Lawrence specifically testified that his	reallocation of responsibilities.
	predecessor's job description had been passed on to him, but there had	
	been various changes throughout the organization and they just did not	NOTE: In order to provide an accurate overview of the
	update his job description. (MBI Testimony of J. Lawrence, 2/20/16,	TOTE organization, NTSB has requested (via email to
	p.39.) We therefore request that a notation be made in the draft factual	Lee Peterson) an explanation that provides specific
	report for each job description that certain aspects of the job descriptions may not have been updated as a result of reallocation of	details as to which job descriptions were outdated, as well as any outdated items in the organizational chart,
	responsibilities.	which was provided by TOTE early in the investigation.
	responsionales.	which was provided by TOTE early in the investigation.
Page 41,	We believe the statement of facts with respect to the Polish Riding	Failure of Coast Guard to provide a qualified interpreter
line 18,	crew, and their indoctrination and integration with the vessel's	is a matter of opinion and will not be referenced in the
through	emergency procedures, is a selective recitation of the of the evidence.	factual report. Issues with interpretation were dealt with
Page 42,	The lack of objectivity is troubling.	early on in the interview with Mr. Pupp and questions
line 20		were asked and answered again once audio was
	As a threshold matter, in reality, the Coast Guard MBI failed to use a	improved. MBI transcripts were used in the recitation of
	qualified interpreter, failed to follow accepted interpretation procedures, and the quality of the audio (using skype) made the	witness testimony for the factual report.
	testimony, at times, inaudible. As a result, the testimony of Mr. Pupp	Spouse statements were requested by NTSB IIC and
	before the MBI was, by any objective measure, chaotic, disjointed, and	were translated by the Polish investigator asked to
	in many instances incomprehensible. At a minimum, those failures,	support that task. Additionally, the NTSB had the
	and the chaotic nature of the testimony and audio must be taken into	statements transcribed by the Dept of State to ensure
	account and mentioned in the draft factual report so this particular	adequacy and completeness.
	evidence can be properly weighed. We were not asked to participate	^ -
	with the "written interviews" with the Polish spouses, and so we cannot	The following was added to the end of the first

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comment on whether those translated communications were performed in the same poor manner as the MBI proceedings.

In any event, the draft factual report largely relies on Mr. Pupp's testimony, cherry picks evidence, and fails to acknowledge all of the other testimony, corroborated by numerous crewmembers, which provides substantial evidence that the Polish riding crew were routinely given indoctrination when they came aboard and went to their assigned muster station (on the bridge) during drills. For example:

Mr. Berrios testified that Captain Davidson made sure everyone participated in safety drills and was strict about providing proper indoctrination to riding crew.

(Berrios, NTSB, 12/06/15, pp.47, 50, 65-67); (Berrios, MBI 02/19/16, p.62).

According to Mr. Berrios, the Polish riding gang would muster on the bridge during abandon ship drills. MBI Transcript, February 19, 2016 at p. 106. If individuals, including supernumeraries, did not report to their assigned muster station during drills, Captain Davidson "turned the drill into a real situation of missing person, missing crew member and we hunt them" until they were found. MBI Transcript, February 19, 2016 at p. 133-134.

According to Captain Stith, new crew members and non-crew members undertook a familiarization process of their duties and safety procedures. (Stith, NTSB 10/07/15, pp.58-60).

According to Chief Engineer Robinson, the riding crew on the EL FARO participated in the lifeboat drills. (Robinson, MBI 02/23/15, p.51); (Stith, MBI 05/24/16, pp.53-54).

According to Captain Hearn, Ship riders that did not speak the English language were given an orientation to make sure they understood the basics of lifesaving equipment issued, and, typically, there was an

referenced paragraph (pg 41, line 18). Others testified about whether and where the riding gang mustered for drills. An off-duty chief engineer said the riding crew participated in the lifeboat drills. An off-duty third mate stated that the riding gang would muster on the bridge during abandon ship drills, though he did not personally observe them on the bridge because his muster station during the drills was lifeboat No. 2. He said that he did not recall seeing any of the riding crew muster at his station, but that he may not have seen them because he was usually busy with lifeboat operations during the drills.

Regarding Capt Stith's October 7 interview, he stated that during emergency drills, the riding gang mustered "with everybody" and that he believed they went to the crew mess and awaited further instruction. For abandon ship drills, he stated that they were assigned to a lifeboat and would go to the lifeboat. As for indoctrination, he stated the TOTE policy for indoctrination, not that he witnessed the Polish riding gang's familiarization himself.

Testimony by the Coast Guard riders were not included as this section pertains specifically to the Polish riding gang.

	interpreter or one person that was the primary contact to keep them together. They were also shown their muster location. (Hearn, MBI 05/17/16, pp.47).	
	According to Mr. Baird, the Polish rising crew on the EL FARO were given an indoctrination when they came onboard, and during fire and boat drills they would muster on the bridge. Baird, NTSB, 12/6/15, p. 164.	
	LT Beisner, the U.S. Coast Guard rider who embarked the EL FARO for training purposes, testified that she received a three hour safety indoctrination and tour of the vessel, and she participated in a lifeboat drill that occurred during the two weeks she was onboard. <i>See</i> MBI Testimony 2/25/2016, at p. 95 lines 1-8; p. 102, lines 12-14. The deck and engine cadets embarked on the EL FARO similarly testified that they received a safety orientation and participated in drills, and the cowboys and Coast Guard riders onboard the vessel also participated in drills. <i>See</i> Interview, Deck Cadet, 11/315, pp 22-26, 42; Interview, Engine Cadet, 11/3/15, pp 52-53, 42-45, and 59.	
	The draft factual report inexplicably fails to mention the testimony of at least five witnesses who all consistently testified that the Polish riding gangs on the EL FARO were given a safety indoctrination when they came aboard the vessel and that they routinely mustered during fire and boat drills.	
	As written, the draft factual report, in regard to this subject, lacks objectivity and fails to state the evidence in a balanced and complete way. We request that all the facts and evidence be accurately and fairly stated.	
Page 43, Lines 4-7	Intec's Simo Tervo responded to our inquiry April 24 and it was forwarded to the NTSB Investigator-in-Charge on April 25. Intec did not provide training.	Concur. This information was provided following submission of factual to parties for review. The following verbiage has been added to the referenced paragraph:

		Training records for the riding gang were requested from TOTE via the manning company, Intec Maritime Offshore Services. According to statements from two of the Polish riders' wives, their husbands had supplied their job history documentation and certificates to Intec (their employer). Intec stated in response to an investigator's request for documentation that the company had not sent TOTE any employee resumes for the project, and that their workers are instructed to "follow the vessel rules and regulations while they are onboard."
Page 44, Line 3	Recommend changing the sentence to read, " the only phone the crew could access when the vessel was out to sea and beyond cell phone range was on the bridge." And adding, "There were no prohibitions against crew members having their own cell phones or satellite phones."	The referenced paragraph has been changed to include the following verbiage:  The SMS had a policy directing crewmembers to contact the DPA if they had safety concerns. The DPA's phone number was posted throughout the ship. However, the only shipboard or company-provided phone the crew could access was on the bridge. Permission to use that phone was at the captain's discretion, according to a former captain. Crewmembers were not prohibited from having their own cell phones or satellite phones. A SpeakUp website was posted with the DPA's phone number, but the website was not in working order when investigators checked it.
Page 44, Lines 4-5.	The draft factual report leaves the false impression that the "Speak Up" website was not functional. We suspect the NTSB was attempting to access the wrong website.  We produced several "Speak Up" ethics hotline posters to the U.S. Coast Guard MBI to illustrate a history of employing an anonymous ethics hotline and reporting system for employees on board TOTE's vessels. In	The "Speak Up" website was provided to NTSB investigators during MBI #3, at which point it was not functional, as witnessed by a CG attorney and TOTE attorneys who provided the link. Investigator was told by TOTE attorneys that they would look into it and provide updated link. The Saltchuk link was not the link provided to NTSB. Additionally, the flyer does not have
	2014, a new web site and reporting system was put in place. The latest hotline poster, which was posted on board the EL FARO, was produced to the MBI on February 17, 2017. (See attached)	this hotline link on the first page of the flyer—it has a non-functional link that goes to an online reporting search engine. Investigator recommends link be

	We suspect the NTSB investigator attempted to access the website, which was in in place prior to 2014. Of course, that web site was taken down after that service was discontinued in 2014. The latest hotline and website can be accessed here: https://www.saltchuk.com/hotline. The crew of the EL FARO had the ability to make an anonymous report, by phone, or in writing, through this hotline/website, noted on the attached poster.	included on Page 1 of the flyer, not page 3.  Additionally, according to testimony, the DPA refused to work with a crew member who tried to report an issue anonymously via text message. If the suggested paragraph about the ability to make an anonymous report is included, that issue will also have to be included.
	We ask that the draft factual report be updated to accurately reflect the status and functionality of this reporting resource for the EL FARO's crew, including the capability to make anonymous phone and written reports.	The following verbiage is now included in the referenced paragraph:  A SpeakUp website was posted with the DPA's phone number, but the website was not in working order when investigators checked it. An updated three-page flyer was later sent to investigators. The link on page 1 of the flyer directed the user to an online reporting search engine. However, Page 3 of the flyer included a link to the company hotline where crewmembers could access the online reporting tool. The page included a toll-free number as well as instructions on placing a collect call. To use the online reporting tool required an internet connection.
Page 44, line 7	The Master's Review, under the SMS, is required biannually, not quarterly. See OMV 2.2.5.	Concur. Changed to biannually after reviewing OMV 2.2.5.
and pag 46, lines 1-5.	This discussion of heavy weather procedures is inaccurate and incomplete. The crewmember who testified could not recall whether the procedures were in writing, but such procedures are, in fact, in the SMS, and reflect the crewmembers recollection. Given the inaccurate statement of facts, we request the language in lines 45, lines 19-20, and Page 45, lines 1-5, be removed in its entirety and be replaced with the following:	The referenced paragraph has been modified to include the following verbiage: According to interviews and documentation, the company did not have specific procedures for heavy weather, besides the general guidance given in the SMS. A predeparture checklist required crews to secure watertight doors, hatches, and external openings below the main deck before departure. Under the SMS, the
	"In addition, the EL FARO's Pre-Departure checklist required crews to secure watertight doors, hatches, and external openings below the main	chief mate was responsible for ensuring that all watertight doors and hatches were secure. Testimony

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deck prior to departure. See Checklist 16A. Under the SMS, the Chief Officer was responsible to ensure that all watertight doors and hatches were secure. See OMV Sec. 10.13.7.3 and 13.4. Through testimony, crewmembers corroborated that these procedures were employed on the EL FARO. However, a specific "heavy-weather checklist" was not found in the SMS."

from off-duty officers indicated that this pre-departure checklist was used on *El Faro*. However, a specific heavy-weather checklist was not found in the SMS.

## Page 46, lines 6 through 18.

The factual report, with respect to TOTE's communications about storm systems Danny, Erika, and Joaquin, is misleading and incomplete.

First, the language states that a "safety alert" was issued for both tropical storm Erika and hurricane Danny. The DPA issued a safety alert for hurricane Danny, but did not do so for tropical storm Erika. While there were communications between shoreside management, not issued for tropical storm Erika. the terminals, and the vessels regarding tropical storm Erika, no safety alert was issued. We request the language be corrected. To give the proper context to the safety alert issued for hurricane Danny, we ask that the following language be added to the draft depression at 2000 on September 27, while centered factual report at line 16:

The safety alert for hurricane Danny was issued by the DPA in order to 2000 on September 28. Though the system became a notify the fleet that hurricane season was beginning for the year, and to remind them that they needed to take preventative measures and be ready for the season. See MBI Testimony 2/20/16, at p. 29, lines 15-19.

Second, the draft report states that TOTE shoreside staff communicated by email to the vessels with respect to hurricane Danny and tropical storm Erika, but did not do so with respect to Joaquin. As written, we believe this section of the draft report omits important facts, and gives the false impression that there was an organizational or management failure to communicate in the case of Joaquin, when compared to the communications that occurred with respect to hurricane Danny and

Concur with language regarding Hurricane Danny. From line 16, verbiage was edited as follows:

According to TOTE management, the DPA issued the safety alert for Hurricane Danny to notify the fleet that hurricane season was beginning for the year, and to remind them that they needed to take preventive measures and be ready for the season. A safety alert was

The company issued no alerts email communications about Hurricane Joaquin before or during the accident voyage. Joaquin became a tropical about 360 miles northeast of San Salvador Island in the Bahamas. The system became Tropical Storm Joaquin at hurricane at 0200 on September 30, while it was centered 170 miles east-northeast of San Salvador Island, the National Hurricane Center (NHC) did not publicly identify the storm as a hurricane until 0739 that same day.

According to TOTE management, the company's concern was vessels in port. Danny and Erika were forecast, long in advance, to affect TOTE's terminals and its vessels' routes. Joaquin, by contrast, was not predicted to affect the terminals, but rather only the area where the vessels would normally transit. In his testimony during MBI 1, the director of ship

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tropical storm Erika. There is no evidence of that. The evidence and testimony, however, provides a very clear explanation for why there were fewer communications regarding Joaquin, when compared to Danny and Erika. To summarize, Danny and Erika were forecasted, long in advance, to impact TOTE's terminals and the vessels' routes. Joaquin, by contrast, was not forecasted far in advance, and the predicted path was away from the vessel's anticipated trackline and was never predicted to impact the terminals. We have separately provided a graphic with the National Hurricane Forecast Track for all three systems, to illustrate these facts. We ask that this graphic be made part of the record. We also ask that the following additional facts and language be inserted after line 18 on page 46:

In discussing the differences between the communications about ships in....[a]nd obviously what's going to be happening Joaquin, when compared to the number and nature of communications for Danny and Erika, the DPA testified that Erika and Danny were storm systems that were headed directly towards Puerto Rico (as well as Jacksonville in the case of Erika), and were forecasted to do so many days in advance. See MBI Testimony 2/20/16, at pp. 67, 68 lines 1-4. These storms were also forecasted to track into the area where the vessels on the Puerto Rico run would normally transit. *Id.* By contrast, Joaquin was not forecasted to track towards Puerto Rico or Jacksonville, and its forecasted track looked nothing like the forecasts for Danny and Erika. *Id*.

Similarly, when explaining TOTE's response and communications during Erika and Danny, when compared to Joaquin, the Director of Ship Management explained: "in reference to Erika and Danny, those were both bearing down on our ports of call. Erika was bearing down on San Juan and Danny was bearing down on San Juan. And then bearing down on Jacksonville. So those [storms] would have directly affected not only our port operations, but our ships if we had scheduled a ship to be in port those days. Those hurricanes were forecasted to be out as much of a week bearing down on our two ports. And so obviously they had a significant amount of attention in the ports,

management explained:

In reference to Erika and Danny, those were both bearing down on our ports of call. Erika was bearing down on San Juan and Danny was bearing down on San Juan. And then bearing down on Jacksonville. So those [storms] would have directly affected not only our port operations, but our ships if we had scheduled a ship to be in port those days. Those hurricanes were forecasted to be out as much of a week bearing down on our two ports. And so obviously they had a significant amount of attention in the ports, significant amount of attention in the news media, and obviously we had to pay close attention to what we were planning for bringing our if there's a hurricane bearing down on that port. Because you have nowhere to run. A port is – you can't run from a hurricane. And in contrast, since we're talking about hurricanes, you know Joaquin was – as recently as several days before the incident a tropical depression heading to the North Atlantic.

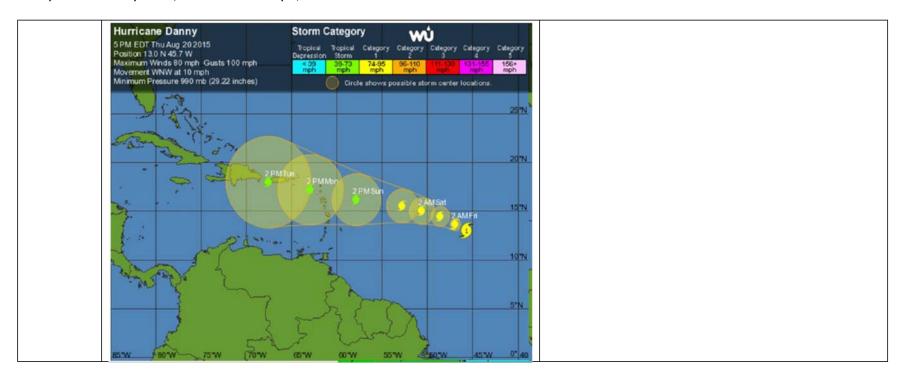
Additionally, in order to accurately reflect the content of the section, the title of Section 4.4.3 has been changed from Decision-Making and Communication "Captain's Decision-Making and Company Support".

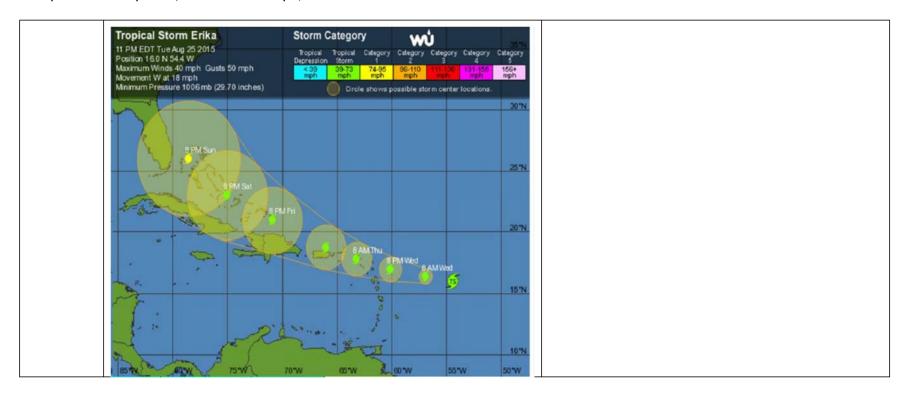
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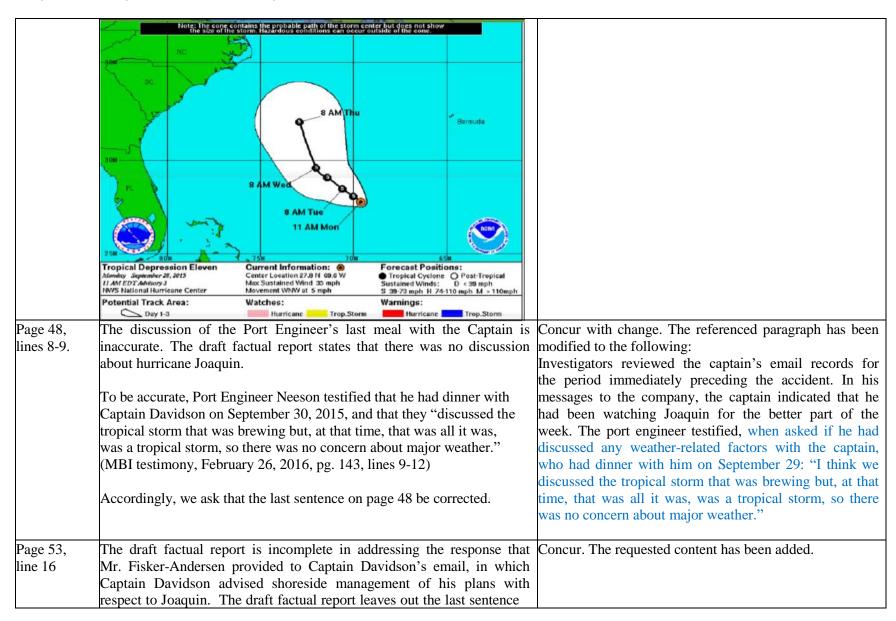
significant amount of attention in the news media, and obviously we had to pay close attention to what we were planning for bringing our ships in....[a]nd obviously what's going to be happening if there's a hurricane bearing down on that port. Because you have nowhere to run. A port is – you can't run from a hurricane. And in contrast, since we're talking about hurricanes, you know Joaquin was – as recently as several days before the incident a tropical depression heading to the North Atlantic." MBI Transcript February 19, 2016, pp. 51, lines 20-23, 52, lines 1-20.

The alert issued by the DPA for hurricane Danny was issued Thursday, August 20, 2015, the day the system changed from a tropical storm into a hurricane, and was forecasted, at that time, to land in Puerto Rico (and begin to impact the normal transit area of the vessels) approximately 5 days later. See Safety Alert 15-08. Similarly, when tropical storm Erika was originally forecasted, it was predicted to land in Puerto Rico, and eventually impact the vessels' route approximately 3 to 4 days later. These storms largely followed along their forecasted route. By comparison, 5 days before the EL FARO encountered Joaquin, the National Hurricane Center had not yet designated the system as a tropical depression, and had not issued any forecast of its path. See MBI exhibit 268 at 16. In fact, the day before the EL FARO departed Jacksonville on its final voyage, the system had just been designated a tropical depression, and was forecasted to head north into the North Atlantic. See attached graphic of NHC forecasts, comparing Joaquin, Danny, and Erika. At that time, Joaquin was not yet designated a tropical storm, and was not predicted to impact the vessel or either of the terminals in Jacksonville or Puerto Rico. *Id* 

Graphic previously submitted to the USCG:







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in Mr. Fisker-Andersen's email response to Captain Davidson: "Thank you for the *heads up*."(emphasis added). This "heads up" language provides further context regarding the nature of the exchange, and is consistent with Captain Davidson's statement on the VDR transcript that he was advising the office as a matter of professional courtesy, and is consistent with the SMS. We request that the last sentence be added to the existing text.

#### Section 4.4.3 and 4.4.4

The entire discussion of decision-making and tracking vessels at sea does not include any discussion of the existing legal and operational framework which exists, as a factual matter, throughout the maritime industry for vessels at sea and governed the EL FARO's operations. No In response to second paragraph of the Comments legitimate evaluation of the company's procedures, with respect to oversight of navigation and the Master's decisions, can be made without this fundamental factual predicate.

As a threshold matter, the law, as exists today, restricts shoreside management from interfering with the Master's decisions with regard to safe navigation of the vessel at sea. See SOLAS Chapter V, Reg. 34. Moreover, Tote's practice of vesting overriding authority with the Master (not shoreside personnel), is rooted in this SOLAS regulation related to risk assessments. The referenced paragraph and the ISM Code at Section 5.2. Tote's SMS with regard to safe navigation (including decision-making with respect to heavy weather) 4.4 Monitoring Vessels at Sea is entirely consistent with this legal and operational framework.

The draft factual report should acknowledge the existence of, and discuss, these basic standards that govern vessel operations throughout the maritime industry, including the operations of the EL FARO. Without a clear understanding and discussion of these standards, no legitimate evaluation of Tote's SMS procedures can be made.

Changed Title section from "Tracking Vessels at Sea" to "Monitoring Vessels at Sea".

column, the section we are discussing is related to monitoring the vessels, which is entirely different from 'interfering' with the captain's decision. Decision support and risk assessment are tools used to assist the captain in making decisions that promote safety of the crew and the vessel.

ISM Code has been incorporated, as well as information has been modified as follows:

The ISM Code states that a company should establish in its SMS that the master has the overriding authority and responsibility to make decisions with respect to safety and pollution prevention and to request the company's assistance as may be necessary. TOTE's SMS stated the master's overriding authority regarding safe navigation of the vessel. On August 26, during tropical storm Erika, the DPA sent the following in an email to the captain: to ensure we are all on the same page and nothing is missed in the risk assessments and action area, please send me a detailed email with vour preparedness/avoidance plans and update daily until all

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clear." The captain sent a detailed email the following day to company management that included the updated storm information and preparation plans for the vessel and crew. He also informed the DPA that he would address a number of items with the crew at the safety meeting later in the day. Based on emails, interviews, and the VDR transcript, there is no evidence that the company requested a similar risk assessment during the accident voyage.

TOTE did not have a policy for monitoring its vessels while at sea. However, as noted earlier, a review of company emails revealed that it sent both emails and a safety alert to its vessels during Hurricane Danny and tropical storm Erika earlier in 2015. Investigators found no company emails related to Joaquin, as either a tropical storm or a hurricane. Noon reports with the ship's position and current weather were sent by *El Faro* as required by the company's SMS. However, according to interviews with the director, as well as the manager of the safety and services department and upper management, no one at the company was aware of the ship's position in relation to the storm or other risks. The DPA stated in an interview that nobody was assigned to monitor ships at sea.

Page 56, lines 1-3.

The draft report states that the Vice President of Operations testified, with respect to Captain Davidson, "I believe he was advised" that he was not selected for the MARLINS. We believe this portion of the factual report is confusing and in some cases inaccurate. To be clear, this testimony is referring to the first time Captain Davidson was advised that he was not selected, in May 2015. The Director of Labor Relations advised Captain Davidson, in person, that he was not selected for the MARLINS on May 12, 2015. *See* MBI Transcript, February 17, 2016, p. 141, lines 16-17. As to the time period after his reconsideration in July/August, the email referenced at footnote 105 in

In an effort to provide an accurate timeline and accurately reflect statements made during mgmt. testimony regarding the captain's future with the Marlins and Ponce class vessels, the referenced paragraph has been modified as follows:

In early 2015, TOTE management assigned the captain positions for the new LNG ships, the *Perla Del Caribe* and the *Isla Bella*. None of the captains who were employed by TOTE at that time were selected. Those assignments were slated for former chief mates and new

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the draft factual report makes clear that, as of September 24, 2015, Captain Davidson was unaware of whether he had been selected for the MARLINS.

In addition, the draft report inaccurately states that it was TOTE's intention that Captain Davidson would not continue as Master aboard *El Faro* in the Alaska trade, but instead would serve as Chief Mate or Second Mate. We do not believe that is supported by the evidence. The Director of Labor Relations clearly testified that TOTE was "planning on keeping Captain Davidson on the El Faro, so that way he could sail on the Alaskan trade...[he]e would still be the master of the ship." Interview, Director of Labor Relations, October 13, 2015, p. 37, lines 7 - 18. This is corroborated by various emails that have been produced to the Coast Guard and NTSB.

We ask that this section be rewritten to accurately state the facts with respect to Captain Davidson's non-selection for the MARLINs, the timing of the same, and TOTE's future plans for Captain Davidson in the Alaska trade.

TOTE employees. According to the testimony of offduty crew and spouses of officers, the selection of personnel and uncertainty about who would be assigned to the new vessels caused discord on *El Faro*. According to MBI testimony, the captain was advised around May 12 by the director of labor relations that he was not selected to work on TOTE's new LNG ships. According to the director of labor relations, when he started in his position in March 2015, "the parameters had kind of already been set that we weren't really considering the current PONCE class masters". He stated that, around July, senior management decided to bring him in for an interview and be reconsidered.

The captain was interviewed on August 4, when management decided to offer him the job. However, before the company president could notify him, an issue was brought to senior management's attention regarding the company's zero-tolerance company alcohol policy and the captain not ensuring that his crew was following that policy. According to testimony from the director of labor relations, this was an 'alleged' incident and "was not documented, it was all verbal secondhand information." Management delayed its discussion with the captain about the job indefinitely. The following is an excerpt from an email the captain sent to a family member, dated September 24, 2015, indicating that he still did not know if he was going to get a position on one of the new ships:

It's looking like I won't be home until 03 Dec. They have no one to relieve me and now I am actually on my scheduled rotation, which has me home for Xmas. Again, I feel taken advantage of . . . But, they pay really good. Who knows how long this good fortune will last. I have no idea if I am even going on the Marlin Class vessels yet.

D 61		The director of labor relations stated in an interview that the company planned to have the captain sail on <i>El Faro</i> in the Alaskan trade. However, this testimony conflicted with a statement by the vice president of TOTE, who stated, "I do not believe [he would remain] in the master role, but there was certainly opportunity for him. He could sail on the vessel, say, possibly as chief mate or second mate."
Page 61, Line 10	The term "navigation office" should read "navigation officer."	Concur. Edited.
Page 62, Lines 10- 12	This summary, in our opinion, is incomplete. We recommend including the entire pertinent paragraph:	Concur. Recommended paragraph has been added to referenced paragraph.
	"The formation and leadership of the bridge team is the primary responsibility of the Master and is just as important as his/her primary duty to the safety of the vessel. Teams do not just happen. They have to be formed and trained to work as teams. It is important therefore that Masters look at their leadership and management styles objectively and put into practice the lessons learned at various management courses and seminars as well as the lessons covered in the TSI: Casualty Analyses, Safety Alerts and Safety Newsletters."	
Page 63, line 16-17	1	Concur. This sentence and the one preceding it have been removed.
	First, the VDR is incomplete and we cannot say definitively that he did not use first names elsewhere	
	Second, and perhaps more important, this is an industry standard to refer to people by position and not by their first name.	
	And for these reasons., we do not think any definitive conclusions can be reached about what was <i>not</i> discussed, since numerous	

	conversations on the bridge took place and large percentage of those conversations were inaudible for various reasons. For these reasons, we request that this sentence be removed.	
Page 67, lines 14 and 15.	The draft factual report states: "Neither the second mate nor the third mate told the other officers that they had called the captain with concerns about the storm's location and the vessel's track." The apparent implication is that there was not a proper handover, because the 3rd Mate did not, according to the draft factual report, inform the 2nd Mate about the conversation he had with the Captain.	Concur with change. Sentence removed from referenced paragraph.
	We believe this statement is unsupported (and somewhat unclear). The "captain" is mentioned in the dialogue which is transcribed at several points in the transcript, during the turnover period, but the context is unclear. We also do not think any definitive conclusions can be reached about what was <i>not</i> discussed, since numerous conversations on the bridge took place and a large percentage of those conversations were inaudible for various reasons. For these reasons, we request that this sentence be removed.	
Page 68, line 3	For the same reasons as above, we do not believe any conclusions can be drawn about what was <i>not</i> said or passed during the turnover. There are simply too many conversations that were inaudible, which could have included a discussion of the barometric pressure (and other information).	
Page 70, line 14	The draft factual report states that the "third mate said he couldn't sleep [on the 30th]." We cannot find such reference in the transcript and do not believe the statement is supported. We ask that the transcript be cited for this and other facts asserted on this page.	Correction made: Chief Mate, not third mate. See changes to site various quotes. Footnotes have also been added with specific VDR dates/times.  He called the storm a "front"; stated "there's nothing

		bad about this ride", to which the chief mate made a comment about sleeping. The captain informed the chief mate that he was "sleepin like a baby" during the night of September 30, to which the chief mate responded, "not me" and the captain asked, "what? Who's not sleepin' good? (how) how come?" The captain repeatedly stated that they were "on the back side" of the storm soon.
		Added Footnotes:  VDR transcript, 13:17:04.8.  VDR transcript, 04:10:24.4—CM quote, "*(not) sleepin'**".  VDR transcript, 04:10:22.2-04:10:31.3.  VDR transcript, 05:06:42.2 (October 1); 05:18:39.4 (October 1); 06:55:20.0 (October 1).
Page 79, Line 3	The sentence should read, " total 40-foot-equivalent units"	Concur. Corrected.
Page 79, Lines 7-8	The draft factual report states that "The company's mission statement at the time of the accident was 'on time, every time." This is inaccurate and misleading for several reasons.  First, Tote Services, Inc's mission statement is: "To provide all our clients diverse solutions to their business goals that are characterized by safety, value, and efficiency."  It appears the draft factual report is picking language, in isolation, from Tote, Inc.'s mission statement. To be precise, Tote Inc. did not own or operate the EL FARO, and thus the relevance of its mission statement is somewhat unclear. Regardless, the draft report is an unfair and incomplete statement of the actual mission statement of Tote Inc.	TOTE services mission statement, according to the company website on June 5, 2017 is "To provide our customers timely solutions characterized by best value, efficiency, and safety, while enabling a capable maritime industry now and in the future." This is different than the mission statement referenced in the TOTE comments column. As for previous mission statements, we do not have that information. Therefore, we will remove all references to mission statements.  Investigators examined the company's website in the days following the accident. The banner on the main page read "On time, every time." Delivering cargo on time was one of TOTE's stated goals. TOTE provided
	Tote Inc's Mission Statement starts with the following: "The safety of	investigators with a record of expected versus actual

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and respect for employees is TOTE's primary charge and can never be compromised." That statement continues with many additional statements, including those regarding "safe, secure and environmentally conscious environment," "highest levels of integrity," and "protect your cargo and our environment," and "safety-oriented culture." Any fair reading of the mission statement can see that safety, respect for employees, environmental responsibility, innovative leadership, and integrity have primacy over all other aspects of Tote Inc's mission.

We are somewhat skeptical of the relevance of the Tote Inc. mission statement. But if the group chairman perceives a need to examine and discuss the mission statements of TSI and/or Tote Inc., we ask that it be accurately quoted in its entirety and fairy described.

delivery times. If arrivals were within a 2-hour window of the expected arrival time, they were considered "100% on time." If arrivals were over 2 hours late, they were considered "0% on time." If a vessel was expected to arrive late, management was to be notified as soon as possible so it could, if appropriate, provide that information to customers. Deviation from the routine voyage plan could increase the time required to reach the destination.

Page 79, Lines 7-13; Page 80, Lines 1-4

We believe this is an inaccurate summary and creates a materially misleading implication as to the influence of on-time targets within TOTE Services.

For example, the draft factual report states (at page 79, lines 12-13) that: "Any deviation from the routine voyage plan would increase the time required to reach the destination." This is not accurate. The evidence shows that the southbound and northbound routes both had a buffer built into the schedule to allow for some extra transit time before arrival at the scheduled time (for meeting tugs, labor, etc.). The northbound route had more buffer time in it than the southbound route. Therefore, there are some deviations that would not result in a delay in reaching the dock in time for scheduled cargo work to begin, and, indeed, even a significant deviation might not cause a delay in actual cargo operations. Further, even if there were a delay arriving in San Juan, the buffer in the northbound route would allow the vessel to return to a regular schedule quickly.

Furthermore, not cited in a balanced manner are numerous instances of testimony that asserted on-time targets did not and would not be

Regarding first paragraph in the party comments section, it does not appear that the statements made change the meaning or intent of the paragraph referenced. No changes were made to this paragraph.

NTSB believes the following paragraph modifications address the concerns about pressure:

During the MBI several TOTE employees were asked about time pressure. Off-duty crewmembers and shoreside personnel stated that the company did not put pressure on the crew to make arrival times and was not penalized if the vessel arrived late to port. Investigators found ten instances in the VDR transcript of bridge personnel talking about the estimated time of arrival in San Juan. The comments began at 0604 on September 30, with the last instance at 1951 the same day. One was a discussion between the captain and the chief mate regarding the estimated time of arrival on October 5, when they were scheduled to return to Jacksonville. At 0742 on September 30, the chief mate and the AB were discussing arrival time into San Juan when the chief

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expected to influence a captain's safety-related decision-making. The mate stated, "it is what it is. Get there when we get only marginally balancing comment is the one at the end of the first paragraph on page 80 that the captain's performance evaluations did not reflect such "on-time" performance. Here are just a few examples:

When asked if he ever observed instances where he felt commercial pressure to maintain a schedule and influence the direction of the ship in any way, Third Mate Berrios testified "never." See MBI Transcript February 19, 2016, p. 118, lines 1-4.

According to Deck Cadet Ringlein, safety was more important to Captain Davidson than maintaining sailing schedule. Interview, Deck Cadet, 11/03/15, pp.55, 85. According to the deck cadet, Captain Davidson would always say, with regard to the vessel's schedule, "we'll get there when we get there." Id at 55. Captain Davidson did not make decisions that were risky and was adamant about everyone remaining safe. See Interview, Thompson, NTSB, 12/06/15, pp.105; Torres, NTSB, 12/03/15, pp.8-9.

When asked if there was pressure to make scheduled arrivals and departures, the off duty chief engineer of the EL FARO testified no one was "pushing us to get there, it was get there when you can." See MBI Transcript February 19, 2016, p. 17, lines 6-14. When asked about Captain Davidson's approach to safety culture, the off duty chief engineer testified "[s]afety was always strongly looked upon. You know all the safety meetings they were very explicit on if you need the equipment, if you don't think you have what you need step back, get it. You know safety was first. If the job had to wait to get completed then so be it." *Id* at lines 1-5.

Captain Byson, the Pilot on the EL FARO upon its departure from Jacksonville on the accident voyage, testified he has served as Pilot on the EL YUNQUE and EL FARO, over the last 15 years, hundreds of times. See MBI Transcript May 16, 2016, p. 8, lines 17-23, p. 9, lines 1-7. When guestioned, Captain Bryson testified that he has never heard there." At 1153 the captain said to the second mate, "... we're getting killed with this speed," to which the second mate replied, "Oh yeah. I think now its not a matter of speed it's when we get there we get there as long as we arrive in one piece."

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the officers on board El Faro or the El Yunque ever talk about the commercial pressure to meet the schedule. *Id.* at p. 32, lines 7-9.

When asked about communications with shoreside management regarding keeping the vessel's schedule, Captain Axelson testified that he "never heard anything coming back to me regarding keeping a tight schedule. The way it was presented to me to – once we sailed let us know your ETA. And about what time you will be there. And if I was going to be an hour late there was no backlash, there was nothing about the why. I wasn't questioned. So I didn't see the ETA as a – as being pushed or forced." See MBI Transcript May 16, 2016, p. 64, lines 1-22, 65, lines 1-2.

What the NTSB investigators may not have understood, and we can provide a supplemental statement to this effect, at no time did any of the ship's personnel have access to this information or even know that it was being tracked in that manner, if tracked at all. In fact, when the NTSB asked for this information, TOTE Services Party Representative Melissa Serridge had to specifically request that information from TOTE Maritime Puerto Rico. She had not seen or been aware of the information prior to that. The summary is therefore misleading and unfair.

Page 81, lines 1-5. Any insinuation that the officers and crew of the EL FARO See revised paragraph: overemphasized the vessel's schedule over safety is simply not During the MBI several TOTE employees were asked supported, and ignores the testimony of numerous witnesses who about time pressure. Off-duty crewmembers and testified, in effect, that the vessel's schedule is always subject to change, if needed, in the interest of safety. The witnesses consistently testified, in sum and substance, just as Chief Mate Shultz commented at 7:42:23 on the VDR transcript: "it is what it is. get there when we get found ten instances in the VDR transcript of bridge there." We ask that the draft factual report cite Chief Mate Shultz's personnel talking about the estimated time of arrival in statement in the VDR, and to be accurate and fair, also acknowledge San Juan. The comments began at 0604 on September and cite the testimony of the numerous witnesses who testified that 30, with the last instance at 1951 the same day. One was vessel and crew safety is always the paramount concern in Tote's a discussion between the captain and the chief mate operations.

shoreside personnel stated that the company did not put pressure on the crew to make arrival times and was not penalized if the vessel arrived late to port. Investigators regarding the estimated time of arrival on October 5,

		when they were scheduled to return to Jacksonville. At 0742 on September 30, the chief mate and the AB were discussing arrival time into San Juan when the chief mate stated, "it is what it is. Get there when we get there." At 1153 the captain said to the second mate, " we're getting killed with this speed," to which the second mate replied, "Oh yeah. I think now its not a matter of speed it's when we get there we get there as long as we arrive in one piece."
Section 4.4.5	FOR YOUR INFORMATION: Under Section 4.4.5 Hiring and Position Assignment-new information has been added.	The following has been added to the end of the first paragraph in this section: Investigators requested from the captain's previous employer, a copy of his performance evaluations (and related material) for the last two years of employment, any disciplinary reports, and his letter of resignation. Although the company provided no performance evaluations, investigators found documentation related to his performance, including two letters of warning and a letter describing a meeting between the captain and management in which they discussed the following four areas: overtime for cargo operations; concern of unprofessional or disparaging remarks to nonvessel personnel by vessel officers; perception of master disassociating himself from daily activities; and perception of disharmony between master and senior officers. During this meeting, management advised the captain that he was to be conscious of his "interactions with his senior officers and to exert efforts to dispel any perceptions of disharmony—this is not to say that the master is to be everybody's best friend, but to manage a

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safe and healthy working environment." In one letter of warning, two violations were listed in relation to the reporting of an accident. The company warned that "any further incidents of policy infractions or poor job performance would cause us to have a loss of confidence in you as master within our fleet of vessels", resulting in further disciplinary action, up to and including termination. A second letter of warning indicated a failure to notify management of actual or suspected damage to cargo. The letter stated: "Previously you have been warned that any further incidents of policy infractions or poor job performance would cause us to have a loss of confidence in you as master within our fleet of vessels, and more severe disciplinary action, up to and including, your termination would occur". The captain submitted his resignation letter during the month of the second warning letter. See added statement by second mate (Last sentence): FOR YOUR INFORMATION: An additional quote from the 2<sup>nd</sup> mate Section The captain made statements indicating that he did not 4.5.2, has been added from the VDR transcript to supplement this section. The captain was making statements that indicated the storm wasn't that think the storm was going to be very bad. When subheading bad. This additional statement shows perspective from another crew discussing various route options and waypoints with the Situation chief mate, the captain said, "it's a good little diversion member regarding his statements. Awareness,  $4^{th}$ are you feelin' comfortable with that chief mate" to which the chief mate said, "better. yes sir...the other paragraph option is drastic." The captain responded, "ya. It doesn't warrant it...you can't run...every single weather pattern...now that would be the action for some guy that's never been anywhere else...(for now) we'll just sit on the bank and fish for trout." The second mate told the third mate, "\*\*\* he's tellin' everybody down thereTechnical Review of draft Human Factors Group Factual Report: TOTE, Inc.

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"ohhh it's not a bad storm. it's not so bad. \* \* it's not even that windy out \* \* seen worse."